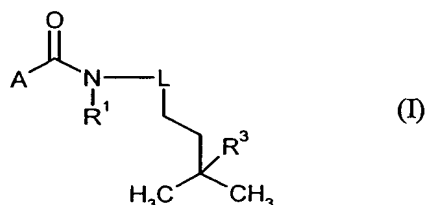
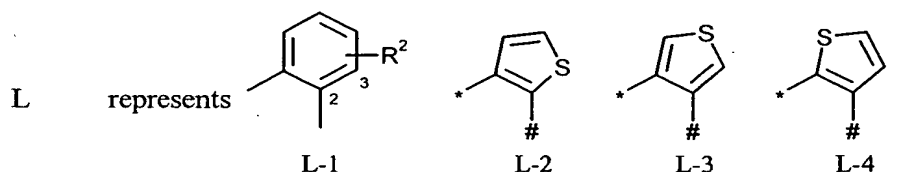


**Patent claims**

## 1. Isopentylcarboxanilides of the formula (I)



5 in which



where the bond labelled with \* is attached to the amide, whereas the bond labelled with # is attached to the alkyl side chain,

10  $R^1$  represents hydrogen,  $C_1$ - $C_8$ -alkyl,  $C_1$ - $C_6$ -alkylsulphinyl,  $C_1$ - $C_6$ -alkylsulphonyl,  $C_1$ - $C_4$ -alkoxy- $C_1$ - $C_4$ -alkyl,  $C_3$ - $C_8$ -cycloalkyl;  $C_1$ - $C_6$ -haloalkyl,  $C_1$ - $C_4$ -haloalkylthio,  $C_1$ - $C_4$ -haloalkylsulphinyl,  $C_1$ - $C_4$ -haloalkylsulphonyl, halo- $C_1$ - $C_4$ -alkoxy- $C_1$ - $C_4$ -alkyl,  $C_3$ - $C_8$ -halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms; formyl, formyl- $C_1$ - $C_3$ -alkyl, ( $C_1$ - $C_3$ -alkyl)carbonyl- $C_1$ - $C_3$ -alkyl, ( $C_1$ - $C_3$ -alkoxy)carbonyl- $C_1$ - $C_3$ -alkyl; halo-( $C_1$ - $C_3$ -alkyl)carbonyl- $C_1$ - $C_3$ -alkyl, halo-( $C_1$ - $C_3$ -alkoxy)carbonyl- $C_1$ - $C_3$ -alkyl having in each case 1 to 13 fluorine, chlorine and/or bromine atoms;

15 ( $C_1$ - $C_8$ -alkyl)carbonyl, ( $C_1$ - $C_8$ -alkoxy)carbonyl, ( $C_1$ - $C_4$ -alkoxy- $C_1$ - $C_4$ -alkyl)carbonyl, ( $C_3$ - $C_8$ -cycloalkyl)carbonyl; ( $C_1$ - $C_6$ -haloalkyl)carbonyl, ( $C_1$ - $C_6$ -haloalkoxy)carbonyl, (halo- $C_1$ - $C_4$ -alkoxy- $C_1$ - $C_4$ -alkyl)carbonyl, ( $C_3$ - $C_8$ -halocycloalkyl)carbonyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms; or  $-C(=O)C(=O)R^4$ ,  $-CONR^5R^6$  or  $-CH_2NR^7R^8$ ,

20  $R^2$  represents hydrogen, fluorine, chlorine, methyl or trifluoromethyl,

$R^3$  represents hydrogen, halogen,  $C_1$ - $C_8$ -alkyl,  $C_1$ - $C_8$ -haloalkyl,

25  $R^4$  represents hydrogen,  $C_1$ - $C_8$ -alkyl,  $C_1$ - $C_8$ -alkoxy,  $C_1$ - $C_4$ -alkoxy- $C_1$ - $C_4$ -alkyl,  $C_3$ - $C_8$ -cycloalkyl;  $C_1$ - $C_6$ -haloalkyl,  $C_1$ - $C_6$ -haloalkoxy, halo- $C_1$ - $C_4$ -alkoxy- $C_1$ - $C_4$ -alkyl,  $C_3$ - $C_8$ -halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms,

$R^5$  and  $R^6$  independently of one another each represent hydrogen,  $C_1$ - $C_8$ -alkyl,  $C_1$ - $C_4$ -alkoxy- $C_1$ - $C_4$ -alkyl,  $C_3$ - $C_8$ -cycloalkyl;  $C_1$ - $C_8$ -haloalkyl, halo- $C_1$ - $C_4$ -alkoxy- $C_1$ - $C_4$ -alkyl,  $C_3$ - $C_8$ -halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms,

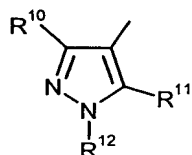
$R^5$  and  $R^6$  furthermore together with the nitrogen atom to which they are attached form a saturated heterocycle having 5 to 8 ring atoms which is optionally mono- or polysubstituted by identical or different substituents from the group consisting of halogen and  $C_1$ - $C_4$ -alkyl, where the heterocycle may contain 1 or 2 further non-adjacent heteroatoms from the group consisting of oxygen, sulphur and  $NR^9$ ,

$R^7$  and  $R^8$  independently of one another represent hydrogen,  $C_1$ - $C_8$ -alkyl,  $C_3$ - $C_8$ -cycloalkyl;  $C_1$ - $C_8$ -haloalkyl,  $C_3$ - $C_8$ -halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms,

$R^7$  and  $R^8$  furthermore together with the nitrogen atom to which they are attached form a saturated heterocycle having 5 to 8 ring members which is optionally mono- or polysubstituted by identical or different substituents from the group consisting of halogen and  $C_1$ - $C_4$ -alkyl, where the heterocycle may contain 1 or 2 further non-adjacent heteroatoms from the group consisting of oxygen, sulphur and  $NR^9$ ,

$R^9$  represents hydrogen or  $C_1$ - $C_6$ -alkyl,

A represents the radical of the formula (A1)



(A1), in which

$R^{10}$  represents hydrogen, hydroxyl, formyl, cyano, halogen, nitro,  $C_1$ - $C_4$ -alkyl,  $C_1$ - $C_4$ -alkoxy,  $C_1$ - $C_4$ -alkylthio,  $C_3$ - $C_6$ -cycloalkyl,  $C_1$ - $C_4$ -haloalkyl,  $C_1$ - $C_4$ -haloalkoxy or  $C_1$ - $C_4$ -haloalkylthio having in each case 1 to 5 halogen atoms, aminocarbonyl or aminocarbonyl- $C_1$ - $C_4$ -alkyl,

$R^{11}$  represents hydrogen, halogen, cyano,  $C_1$ - $C_4$ -alkyl,  $C_1$ - $C_4$ -alkoxy,  $C_1$ - $C_4$ -alkylthio,  $C_1$ - $C_4$ -haloalkyl or  $C_1$ - $C_4$ -haloalkylthio having in each case 1 to 5 halogen atoms, and

$R^{12}$  represents hydrogen,  $C_1$ - $C_4$ -alkyl, hydroxy- $C_1$ - $C_4$ -alkyl,  $C_2$ - $C_6$ -alkenyl,  $C_3$ - $C_6$ -cycloalkyl,  $C_1$ - $C_4$ -alkylthio- $C_1$ - $C_4$ -alkyl,  $C_1$ - $C_4$ -alkoxy- $C_1$ - $C_4$ -alkyl,  $C_1$ - $C_4$ -haloalkyl,  $C_1$ - $C_4$ -haloalkylthio- $C_1$ - $C_4$ -alkyl,  $C_1$ - $C_4$ -haloalkoxy- $C_1$ - $C_4$ -alkyl having in each case 1 to 5 halogen atoms, or represents phenyl,

with the proviso that  $R^{10}$  does not represent iodine if  $R^{11}$  represents hydrogen and

with the proviso that  $R^{10}$  does not represent trifluoromethyl or difluoromethyl if  $R^3$  and  $R^{11}$  represent hydrogen and  $R^{12}$  represents methyl,

or

A represents the radical (A2)

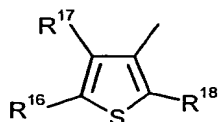


(A2), in which

$R^{13}$  and  $R^{14}$  independently of one another represent hydrogen, halogen,  $C_1$ - $C_4$ -alkyl or  $C_1$ - $C_4$ -haloalkyl having 1 to 5 halogen atoms and  
 $R^{15}$  represents halogen, cyano or  $C_1$ - $C_4$ -alkyl, or  $C_1$ - $C_4$ -haloalkyl or  $C_1$ - $C_4$ -haloalkoxy having in each case 1 to 5 halogen atoms,

or

A represents the radical of the formula (A3)

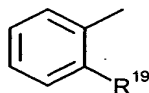


(A3), in which

$R^{16}$  and  $R^{17}$  independently of one another represent hydrogen, halogen,  $C_1$ - $C_4$ -alkyl or  $C_1$ - $C_4$ -haloalkyl having 1 to 5 halogen atoms and  
 $R^{18}$  represents hydrogen,  $C_1$ - $C_4$ -alkyl or  $C_1$ - $C_4$ -haloalkyl having 1 to 5 halogen atoms,

or

A represents the radical of the formula (A4)

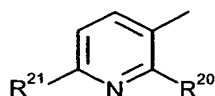


(A4), in which

$R^{19}$  represents hydrogen, halogen, hydroxyl, cyano,  $C_1$ - $C_6$ -alkyl,  $C_1$ - $C_4$ -haloalkyl,  $C_1$ - $C_4$ -haloalkoxy or  $C_1$ - $C_4$ -haloalkylthio having in each case 1 to 5 halogen atoms,

or

A represents the radical of the formula (A5)

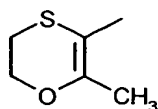


(A5), in which

$R^{20}$  represents halogen, hydroxyl, cyano,  $C_1$ - $C_4$ -alkyl,  $C_1$ - $C_4$ -alkoxy,  $C_1$ - $C_4$ -alkylthio,  $C_1$ - $C_4$ -haloalkyl,  $C_1$ - $C_4$ -haloalkylthio or  $C_1$ - $C_4$ -haloalkoxy having in each case 1 to 5 halogen atoms and  
 $R^{21}$  represents hydrogen, halogen, cyano,  $C_1$ - $C_4$ -alkyl,  $C_1$ - $C_4$ -alkoxy,  $C_1$ - $C_4$ -alkylthio,  $C_1$ - $C_4$ -haloalkyl,  $C_1$ - $C_4$ -haloalkoxy having in each case 1 to 5 halogen atoms,  $C_1$ - $C_4$ -alkylsulphinyl or  $C_1$ - $C_4$ -alkylsulphonyl,

or

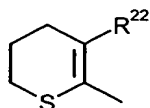
A represents the radical of the formula (A6)



(A6),

or

A represents the radical of the formula (A7)

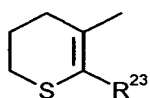


(A7), in which

5  $R^{22}$  represents  $C_1$ - $C_4$ -alkyl or  $C_1$ - $C_4$ -haloalkyl having 1 to 5 halogen atoms,

or

A represents the radical of the formula (A8)

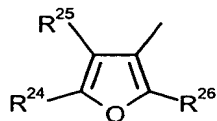


(A8), in which

10  $R^{23}$  represents  $C_1$ - $C_4$ -alkyl or  $C_1$ - $C_4$ -haloalkyl having 1 to 5 halogen atoms,

or

A represents the radical of the formula (A9)



(A9), in which

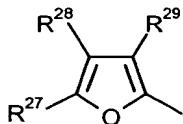
15  $R^{24}$  and  $R^{25}$  independently of one another represent hydrogen, halogen, amino,  $C_1$ - $C_4$ -alkyl or  $C_1$ - $C_4$ -haloalkyl having 1 to 5 halogen atoms and

$R^{26}$  represents hydrogen,  $C_1$ - $C_4$ -alkyl or  $C_1$ - $C_4$ -haloalkyl having 1 to 5 halogen atoms,

with the proviso that  $R^{24}$  and  $R^{26}$  do not simultaneously represent methyl if  $R^{25}$  represents hydrogen,

or

20 A represents the radical of the formula (A10)



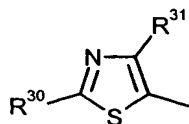
(A10) in which

$R^{27}$  and  $R^{28}$  independently of one another represent hydrogen, halogen, amino, nitro,  $C_1$ - $C_4$ -alkyl or  $C_1$ - $C_4$ -haloalkyl having 1 to 5 halogen atoms and

25  $R^{29}$  represents halogen,  $C_1$ - $C_4$ -alkyl or  $C_1$ - $C_4$ -haloalkyl having 1 to 5 halogen atoms,

or

A represents the radical of the formula (A11)



(A11) in which

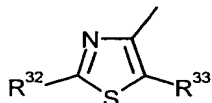
$R^{30}$  represents hydrogen, halogen, amino,  $C_1$ - $C_4$ -alkylamino, di- $(C_1$ - $C_4$ -alkyl)amino, cyano,  $C_1$ - $C_4$ -alkyl or  $C_1$ - $C_4$ -haloalkyl having 1 to 5 halogen atoms and

5  $R^{31}$  represents halogen, hydroxyl,  $C_1$ - $C_4$ -alkyl,  $C_1$ - $C_4$ -alkoxy,  $C_3$ - $C_6$ -cycloalkyl,  $C_1$ - $C_4$ -haloalkyl or  $C_1$ - $C_4$ -haloalkoxy having in each case 1 to 5 halogen atoms,

with the proviso that  $R^{31}$  does not represent trifluoromethyl, difluoromethyl or methyl if  $R^3$  represents hydrogen and  $R^{30}$  represents methyl,

10 or

A represents the radical of the formula (A12)



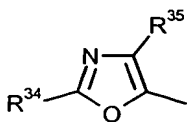
(A12) in which

$R^{32}$  represents hydrogen, halogen, amino,  $C_1$ - $C_4$ -alkylamino, di- $(C_1$ - $C_4$ -alkyl)amino, cyano,  $C_1$ - $C_4$ -alkyl or  $C_1$ - $C_4$ -haloalkyl having 1 to 5 halogen atoms and

15  $R^{33}$  represents halogen,  $C_1$ - $C_4$ -alkyl or  $C_1$ - $C_4$ -haloalkyl having 1 to 5 halogen atoms,

or

A represents the radical of the formula (A13)



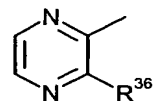
(A13) in which

$R^{34}$  represents hydrogen or  $C_1$ - $C_4$ -alkyl and

$R^{35}$  represents halogen or  $C_1$ - $C_4$ -alkyl,

or

A represents the radical of the formula (A14)

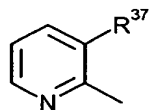


(A14) in which

25  $R^{36}$  represents hydrogen, halogen,  $C_1$ - $C_4$ -alkyl or  $C_1$ - $C_4$ -haloalkyl having 1 to 5 halogen atoms,

or

A represents the radical of the formula (A15)

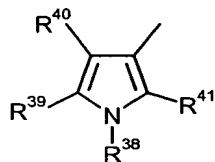


(A15) in which

$R^{37}$  represents halogen, hydroxyl,  $C_1$ - $C_4$ -alkyl,  $C_1$ - $C_4$ -alkoxy,  $C_1$ - $C_4$ -alkylthio,  $C_1$ - $C_4$ -haloalkyl,  $C_1$ - $C_4$ -haloalkylthio or  $C_1$ - $C_4$ -haloalkoxy having in each case 1 to 5 halogen atoms,

5 or

A represents the radical of the formula (A16)



(A16) in which

$R^{38}$  represents hydrogen, cyano,  $C_1$ - $C_4$ -alkyl,  $C_1$ - $C_4$ -haloalkyl having 1 to 5 halogen atoms,  $C_1$ - $C_4$ -alkoxy- $C_1$ - $C_4$ -alkyl, hydroxy- $C_1$ - $C_4$ -alkyl,  $C_1$ - $C_4$ -alkylsulphonyl, di( $C_1$ - $C_4$ -alkyl)aminosulphonyl,  $C_1$ - $C_6$ -alkylcarbonyl or in each case optionally substituted phenylsulphonyl or benzoyl,

10

$R^{39}$  represents hydrogen, halogen,  $C_1$ - $C_4$ -alkyl or  $C_1$ - $C_4$ -haloalkyl having 1 to 5 halogen atoms,

$R^{40}$  represents hydrogen, halogen, cyano,  $C_1$ - $C_4$ -alkyl or  $C_1$ - $C_4$ -haloalkyl having 1 to 5 halogen atoms,

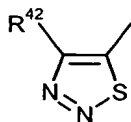
15

$R^{41}$  represents hydrogen, halogen,  $C_1$ - $C_4$ -alkyl or  $C_1$ - $C_4$ -haloalkyl having 1 to 5 halogen atoms,

with the proviso that  $R^{40}$  does not represent trifluoromethyl,

or

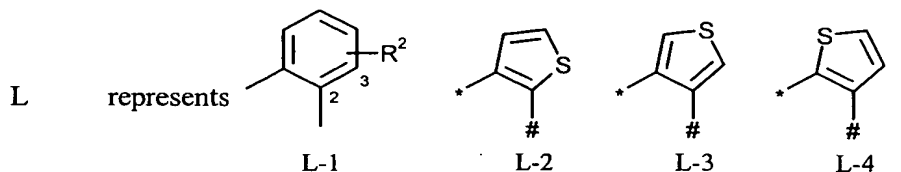
20 A represents the radical of the formula (A17)



(A17) in which

$R^{42}$  represents  $C_1$ - $C_4$ -alkyl.

2. Isopentylcarboxanilides of the formula (I) according to Claim 1 in which



25

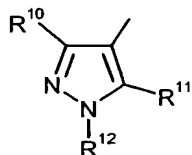
where the bond marked with \* is attached to the amide, whereas the bond marked with # is attached to the alkyl side chain,

- 5  $R^1$  represents hydrogen,  $C_1$ - $C_6$ -alkyl,  $C_1$ - $C_4$ -alkylsulphinyl,  $C_1$ - $C_4$ -alkylsulphonyl,  $C_1$ - $C_3$ -alkoxy- $C_1$ - $C_3$ -alkyl,  $C_3$ - $C_6$ -cycloalkyl;  $C_1$ - $C_4$ -haloalkyl,  $C_1$ - $C_4$ -haloalkylthio,  $C_1$ - $C_4$ -haloalkylsulphinyl,  $C_1$ - $C_4$ -haloalkylsulphonyl, halo- $C_1$ - $C_3$ -alkoxy- $C_1$ - $C_3$ -alkyl,  $C_3$ - $C_8$ -halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms; formyl, formyl- $C_1$ - $C_3$ -alkyl, ( $C_1$ - $C_3$ -alkyl)carbonyl- $C_1$ - $C_3$ -alkyl, ( $C_1$ - $C_3$ -alkoxy)carbonyl- $C_1$ - $C_3$ -alkyl; halo-( $C_1$ - $C_3$ -alkyl)carbonyl- $C_1$ - $C_3$ -alkyl, halo-( $C_1$ - $C_3$ -alkoxy)carbonyl- $C_1$ - $C_3$ -alkyl having in each case 1 to 13 fluorine, chlorine and/or bromine atoms; ( $C_1$ - $C_6$ -alkyl)carbonyl, ( $C_1$ - $C_4$ -alkoxy)carbonyl, ( $C_1$ - $C_3$ -alkoxy- $C_1$ - $C_3$ -alkyl)carbonyl, ( $C_3$ - $C_6$ -cycloalkyl)carbonyl; ( $C_1$ - $C_4$ -haloalkyl)carbonyl, ( $C_1$ - $C_4$ -haloalkoxy)carbonyl, (halo- $C_1$ - $C_3$ -alkoxy- $C_1$ - $C_3$ -alkyl)carbonyl, ( $C_3$ - $C_6$ -halocycloalkyl)carbonyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms; or  $-C(=O)C(=O)R^4$ ,  $-CONR^5R^6$  or  $-CH_2NR^7R^8$ ,
- 10  $R^2$  represents hydrogen, fluorine, chlorine, methyl or trifluoromethyl,
- $R^3$  represents hydrogen, fluorine, chlorine, bromine, iodine,  $C_1$ - $C_6$ -alkyl,  $C_1$ - $C_6$ -haloalkyl having 1 to 13 fluorine, chlorine and/or bromine atoms,
- 15  $R^4$  represents hydrogen,  $C_1$ - $C_6$ -alkyl,  $C_1$ - $C_4$ -alkoxy,  $C_1$ - $C_3$ -alkoxy- $C_1$ - $C_3$ -alkyl,  $C_3$ - $C_6$ -cycloalkyl;  $C_1$ - $C_4$ -haloalkyl,  $C_1$ - $C_4$ -haloalkoxy, halo- $C_1$ - $C_3$ -alkoxy- $C_1$ - $C_3$ -alkyl,  $C_3$ - $C_6$ -halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms,
- 20  $R^5$  and  $R^6$  independently of one another each represent hydrogen,  $C_1$ - $C_6$ -alkyl,  $C_1$ - $C_3$ -alkoxy- $C_1$ - $C_3$ -alkyl,  $C_3$ - $C_6$ -cycloalkyl;  $C_1$ - $C_4$ -haloalkyl, halo- $C_1$ - $C_3$ -alkoxy- $C_1$ - $C_3$ -alkyl,  $C_3$ - $C_6$ -halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms,
- 25  $R^5$  and  $R^6$  furthermore together with the nitrogen atom to which they are attached form a saturated heterocycle having 5 to 8 ring atoms which is optionally mono- to tetrasubstituted by identical or different substituents from the group consisting of halogen and  $C_1$ - $C_4$ -alkyl, where the heterocycle may contain 1 or 2 further non-adjacent heteroatoms from the group consisting of oxygen, sulphur and  $NR^9$ ,
- 30  $R^7$  and  $R^8$  independently of one another represent hydrogen,  $C_1$ - $C_6$ -alkyl,  $C_3$ - $C_6$ -cycloalkyl;  $C_1$ - $C_4$ -haloalkyl,  $C_3$ - $C_6$ -halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms,
- 35  $R^7$  and  $R^8$  furthermore together with the nitrogen atom to which they are attached form a saturated heterocycle having 5 to 8 ring atoms which is optionally mono- or polysubstituted by identical or different substituents from the group consisting of

halogen and C<sub>1</sub>-C<sub>4</sub>-alkyl, where the heterocycle may contain 1 or 2 further non-adjacent heteroatoms from the group consisting of oxygen, sulphur and R<sup>9</sup>,

R<sup>9</sup> represents hydrogen or C<sub>1</sub>-C<sub>4</sub>-alkyl,

5 A represents the radical of the formula (A1)



(A1) in which

R<sup>10</sup> represents hydrogen, hydroxyl, formyl, cyano, fluorine, chlorine, bromine, iodine, methyl, ethyl, isopropyl, methoxy, ethoxy, methylthio, ethylthio, cyclopropyl, C<sub>1</sub>-C<sub>2</sub>-haloalkyl, C<sub>1</sub>-C<sub>2</sub>-haloalkoxy having in each case 1 to 5

10 fluorine, chlorine and/or bromine atoms, trifluoromethylthio, difluoromethylthio, aminocarbonyl, aminocarbonylmethyl or aminocarbonylethyl,

R<sup>11</sup> represents hydrogen, chlorine, bromine, iodine, methyl, ethyl, methoxy, ethoxy, methylthio, ethylthio, C<sub>1</sub>-C<sub>2</sub>-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms, and

15 R<sup>12</sup> represents hydrogen, methyl, ethyl, n-propyl, isopropyl, C<sub>1</sub>-C<sub>2</sub>-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms, hydroxymethyl, hydroxyethyl, cyclopropyl, cyclopentyl, cyclohexyl or phenyl,

with the proviso that R<sup>10</sup> does not represent iodine if R<sup>11</sup> represents hydrogen and

with the proviso that R<sup>10</sup> does not represent trifluoromethyl or difluoromethyl if R<sup>11</sup> and R<sup>12</sup> represent hydrogen and R<sup>12</sup> represents methyl,

20

or

A represents the radical of the formula (A2)



(A2) in which

R<sup>13</sup> and R<sup>14</sup> independently of one another represent hydrogen, fluorine, chlorine, bromine, methyl, ethyl or C<sub>1</sub>-C<sub>2</sub>-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms and

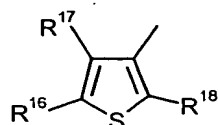
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R<sup>15</sup> represents fluorine, chlorine, bromine, iodine, cyano, methyl, ethyl, C<sub>1</sub>-C<sub>2</sub>-haloalkyl or C<sub>1</sub>-C<sub>2</sub>-haloalkoxy having in each case 1 to 5 fluorine, chlorine and/or bromine atoms,

30 or

A represents the radical of the formula (A3)





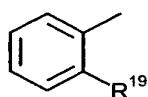
(A3) in which

$R^{16}$  and  $R^{17}$  independently of one another represent hydrogen, fluorine, chlorine, bromine, methyl, ethyl or  $C_1$ - $C_2$ -haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms and

5  $R^{18}$  represents hydrogen, methyl, ethyl or  $C_1$ - $C_2$ -haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A represents the radical of the formula (A4)

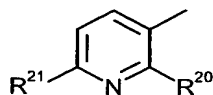


(A4) in which

10  $R^{19}$  represents hydrogen, fluorine, chlorine, bromine, iodine, hydroxyl, cyano,  $C_1$ - $C_4$ -alkyl,  $C_1$ - $C_2$ -haloalkyl,  $C_1$ - $C_2$ -haloalkoxy or  $C_1$ - $C_2$ -haloalkylthio having in each case 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A represents the radical of the formula (A5)



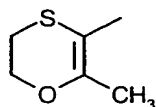
(A5) in which

15  $R^{20}$  represents fluorine, chlorine, bromine, iodine, hydroxyl, cyano,  $C_1$ - $C_4$ -alkyl, methoxy, ethoxy, methylthio, ethylthio, difluoromethylthio, trifluoromethylthio,  $C_1$ - $C_2$ -haloalkyl or  $C_1$ - $C_2$ -haloalkoxy having in each case 1 to 5 fluorine, chlorine and/or bromine atoms and

20  $R^{21}$  represents hydrogen, fluorine, chlorine, bromine, iodine, cyano,  $C_1$ - $C_4$ -alkyl, methoxy, ethoxy, methylthio, ethylthio,  $C_1$ - $C_2$ -haloalkyl or  $C_1$ - $C_2$ -haloalkoxy having in each case 1 to 5 fluorine, chlorine and/or bromine atoms,  $C_1$ - $C_2$ -alkylsulphinyl or  $C_1$ - $C_2$ -alkylsulphonyl,

or

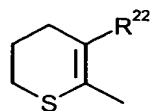
25 A represents the radical of the formula (A6)



(A6),

or

A represents the radical of the formula (A7)



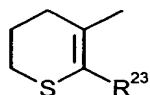
(A7) in which

$R^{22}$  represents methyl, ethyl or  $C_1$ - $C_2$ -haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

or

5

A represents the radical of the formula (A8)



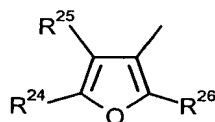
(A8) in which

$R^{23}$  represents methyl, ethyl or  $C_1$ - $C_2$ -haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

or

10

A represents the radical of the formula (A9)



(A9) in which

$R^{24}$  and  $R^{25}$  independently of one another represent hydrogen, fluorine, chlorine, bromine, amino, methyl, ethyl or  $C_1$ - $C_2$ -haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms, and

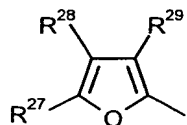
15

$R^{26}$  represents hydrogen, fluorine, chlorine, bromine, iodine, methyl, ethyl or  $C_1$ - $C_2$ -haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms, with the proviso that  $R^{24}$  and  $R^{26}$  do not simultaneously represent methyl if  $R^{25}$  represents hydrogen,

or

20

A represents the radical of the formula (A10)



(A10) in which

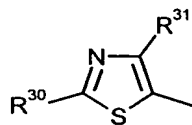
$R^{27}$  and  $R^{28}$  independently of one another represent hydrogen, fluorine, chlorine, bromine, amino, nitro, methyl, ethyl or  $C_1$ - $C_2$ -haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms and

25

$R^{29}$  represents fluorine, chlorine, bromine, methyl, ethyl or  $C_1$ - $C_2$ -haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A represents the radical of the formula (A11)



(A11) in which

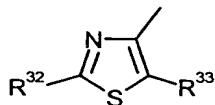
$R^{30}$  represents hydrogen, fluorine, chlorine, bromine, amino,  $C_1$ - $C_4$ -alkylamino, di( $C_1$ - $C_4$ -alkyl)amino, cyano, methyl, ethyl or  $C_1$ - $C_2$ -haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms and

$R^{31}$  represents fluorine, chlorine, bromine, hydroxyl, methyl, ethyl, methoxy, ethoxy, cyclopropyl,  $C_1$ - $C_2$ -haloalkyl or  $C_1$ - $C_2$ -haloalkoxy having 1 to 5 fluorine, chlorine and/or bromine atoms,

with the proviso that  $R^{31}$  does not represent trifluoromethyl, difluoromethyl or methyl if  $R^3$  represents hydrogen and  $R^{30}$  represents methyl,

or

A represents the radical of the formula (A12)



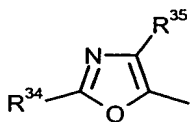
(A12) in which

$R^{32}$  represents hydrogen, fluorine, chlorine, bromine, amino,  $C_1$ - $C_4$ -alkylamino, di( $C_1$ - $C_4$ -alkyl)amino, cyano, methyl, ethyl or  $C_1$ - $C_2$ -haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms and

$R^{33}$  represents fluorine, chlorine, bromine, methyl, ethyl or  $C_1$ - $C_2$ -haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A represents the radical of the formula (A13)



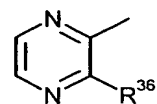
(A13) in which

$R^{34}$  represents hydrogen, methyl or ethyl and

$R^{35}$  represents fluorine, chlorine, bromine, methyl or ethyl,

or

A represents the radical of the formula (A14)

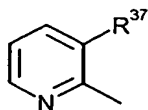


(A14) in which

$R^{36}$  represents hydrogen, fluorine, chlorine, bromine, methyl, ethyl or  $C_1$ - $C_2$ -haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A represents the radical of the formula (A15)

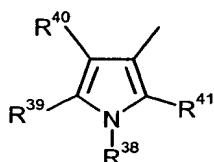


(A15) in which

$R^{37}$  represents fluorine, chlorine, bromine, iodine, hydroxyl,  $C_1$ - $C_4$ -alkyl, methoxy, ethoxy, methylthio, ethylthio, difluoromethylthio, trifluoromethylthio,  $C_1$ - $C_2$ -haloalkyl or  $C_1$ - $C_2$ -haloalkoxy having in each case 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A represents the radical of the formula (A16)



(A16) in which

$R^{38}$  represents hydrogen, methyl, ethyl,  $C_1$ - $C_2$ -haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,  $C_1$ - $C_2$ -alkoxy- $C_1$ - $C_2$ -alkyl, hydroxymethyl, hydroxyethyl, methylsulphonyl or dimethylaminosulphonyl,

$R^{39}$  represents hydrogen, fluorine, chlorine, bromine, methyl, ethyl or  $C_1$ - $C_2$ -haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

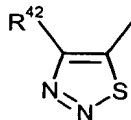
$R^{40}$  represents hydrogen, fluorine, chlorine, bromine, cyano, methyl, ethyl, isopropyl or  $C_1$ - $C_2$ -haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

$R^{41}$  represents hydrogen, fluorine, chlorine, bromine, methyl, ethyl or  $C_1$ - $C_2$ -haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

with the proviso that  $R^{40}$  does not represent trifluoromethyl,

or

A represents the radical of the formula (A17)



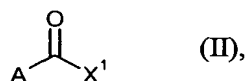
(A17) in which

$R^{42}$  represents methyl, ethyl, n-propyl or isopropyl.

3. Isopentylcarboxanilides of the formula (I) according to Claim 1 or 2 in which L represents L-1.

4. Isopentylcarboxanilides of the formula (I) according to Claim 1 or 2 in which L represents L-2.

5. Isopentylcarboxanilides of the formula (I) according to Claim 1 or 2 in which  $R^1$  represents hydrogen, formyl or  $-C(=O)C(=O)R^4$ , where  $R^4$  is as defined in Claim 1 or 2.
6. Isopentylcarboxanilides of the formula (I) according to Claim 1 or 2 in which A represents A1.
7. Isopentylcarboxanilides of the formula (I) according to Claim 1 or 2, in which  $R^3$  represents hydrogen.
8. Isopentylcarboxanilides of the formula (I) according to Claim 1 or 2 in which  $R^3$  represents halogen,  $C_1$ - $C_8$ -alkyl or  $C_1$ - $C_8$ -haloalkyl.
9. Process for preparing the compounds of the formula (I) according to Claim 1, characterized in that
- a) carboxylic acid derivatives of the formula (II)

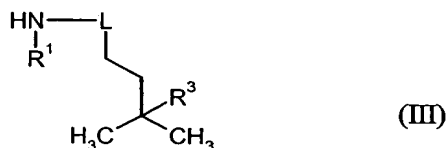


in which

A is as defined in Claim 1 and

$X^1$  represents halogen or hydroxyl,

are reacted with an aniline derivative of the formula (III)

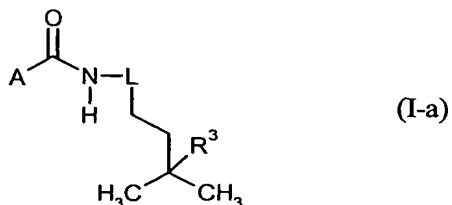


in which L,  $R^1$  and  $R^3$  are as defined above,

if appropriate in the presence of a catalyst, if appropriate in the presence of a condensing agent, if appropriate in the presence of an acid binder and if appropriate in the presence of a diluent,

or

- b) isopentylcarboxanilides of the formula (I-a)



in which

L, A and R<sup>3</sup> are as defined in Claim 1,

are reacted with halides of the formula (IV)



in which

X<sup>2</sup> represents chlorine, bromine or iodine,

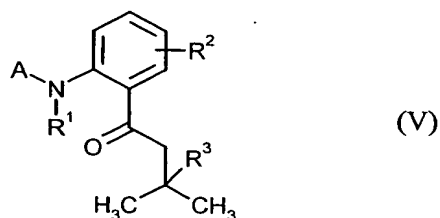
R<sup>1-A</sup> represents C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulphinyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulphonyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl; C<sub>1</sub>-C<sub>6</sub>-haloalkyl, C<sub>1</sub>-C<sub>4</sub>-haloalkylthio, C<sub>1</sub>-C<sub>4</sub>-haloalkylsulphinyl, C<sub>1</sub>-C<sub>4</sub>-haloalkylsulphonyl, halo-C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>3</sub>-C<sub>8</sub>-halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms; formyl, formyl-C<sub>1</sub>-C<sub>3</sub>-alkyl, (C<sub>1</sub>-C<sub>3</sub>-alkyl)carbonyl-C<sub>1</sub>-C<sub>3</sub>-alkyl, (C<sub>1</sub>-C<sub>3</sub>-alkoxy)carbonyl-C<sub>1</sub>-C<sub>3</sub>-alkyl; halo-(C<sub>1</sub>-C<sub>3</sub>-alkyl)carbonyl-C<sub>1</sub>-C<sub>3</sub>-alkyl, halo-(C<sub>1</sub>-C<sub>3</sub>-alkoxy)carbonyl-C<sub>1</sub>-C<sub>3</sub>-alkyl having in each case 1 to 13 fluorine, chlorine and/or bromine atoms; (C<sub>1</sub>-C<sub>8</sub>-alkyl)carbonyl, (C<sub>1</sub>-C<sub>8</sub>-alkoxy)carbonyl, (C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>1</sub>-C<sub>4</sub>-alkyl)carbonyl, (C<sub>3</sub>-C<sub>8</sub>-cycloalkyl)carbonyl; (C<sub>1</sub>-C<sub>6</sub>-haloalkyl)carbonyl, (C<sub>1</sub>-C<sub>6</sub>-haloalkoxy)carbonyl, (halo-C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>1</sub>-C<sub>4</sub>-alkyl)carbonyl, (C<sub>3</sub>-C<sub>8</sub>-halocycloalkyl)carbonyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms; or -C(=O)C(=O)R<sup>4</sup>, CONR<sup>5</sup>R<sup>6</sup> or -CH<sub>2</sub>NR<sup>7</sup>R<sup>8</sup>,

where R<sup>4</sup>, R<sup>5</sup>, R<sup>6</sup>, R<sup>7</sup> and R<sup>8</sup> are as defined in Claim 1,

in the presence of a base and in the presence of a diluent,

or

c) isopentone derivatives of the formula (V)



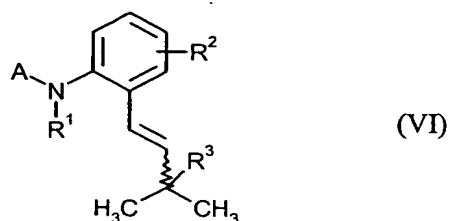
in which

R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and A are as defined in Claim 1,

are reacted with hydrazine (or hydrazine hydrate) in the presence of a base and, if appropriate, in the presence of a diluent,

or

d) isopentene derivatives of the formula (VI)

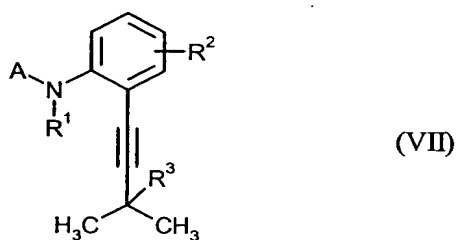


in which  $R^1$ ,  $R^2$ ,  $R^3$  and A are as defined in Claim 1,  
are hydrogenated, if appropriate in the presence of a diluent and if appropriate in the  
presence of a catalyst,

5

or

e) isopentyne derivatives of the formula (VII)



in which  $R^1$ ,  $R^2$ ,  $R^3$  and A are as defined in Claim 1,  
are hydrogenated, if appropriate in the presence of a diluent and if appropriate in the  
presence of a catalyst.

10

10. Compositions for controlling unwanted microorganisms, characterized in that they comprise at least one isopentylcarboxanilide of the formula (I) according to Claim 1, in addition to extenders and/or surfactants.

15

11. Use of isopentylcarboxanilides of the formula (I) according to Claim 1 for controlling unwanted microorganisms.

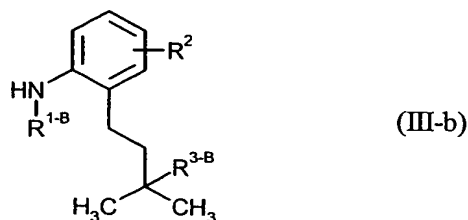
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12. Method for controlling unwanted microorganisms, characterized in that isopentylcarboxanilides of the formula (I) according to Claim 1 are applied to the microorganisms and/or their habitat.

25

13. Process for preparing compositions for controlling unwanted microorganisms, characterized in that isopentylcarboxanilides of the formula (I) according to Claim 1 are mixed with extenders and/or surfactants.

## 14. Aniline derivatives of the formula (III-b)



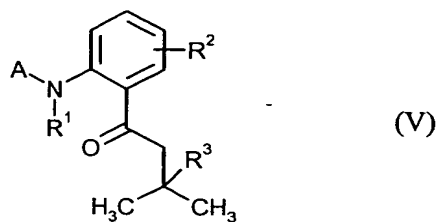
in which

- 5 a)  $R^{1-B}$  represents  $C_1$ - $C_8$ -alkyl,  $C_1$ - $C_6$ -alkylsulphinyl,  $C_1$ - $C_6$ -alkylsulphonyl,  $C_1$ - $C_4$ -alkoxy- $C_1$ - $C_4$ -alkyl,  $C_3$ - $C_8$ -cycloalkyl;  $C_1$ - $C_6$ -haloalkyl,  $C_1$ - $C_4$ -haloalkylthio,  $C_1$ - $C_4$ -haloalkylsulphinyl,  $C_1$ - $C_4$ -haloalkylsulphonyl, halo- $C_1$ - $C_4$ -alkoxy- $C_1$ - $C_4$ -alkyl,  $C_3$ - $C_8$ -halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms; formyl, formyl- $C_1$ - $C_3$ -alkyl, ( $C_1$ - $C_3$ -alkyl)carbonyl- $C_1$ - $C_3$ -alkyl, ( $C_1$ - $C_3$ -alkoxy)carbonyl- $C_1$ - $C_3$ -alkyl; halo-( $C_1$ - $C_3$ -alkyl)-carbonyl- $C_1$ - $C_3$ -alkyl, halo-( $C_1$ - $C_3$ -alkoxy)carbonyl- $C_1$ - $C_3$ -alkyl having in each case 1 to 13 fluorine, chlorine and/or bromine atoms; ( $C_1$ - $C_8$ -alkyl)carbonyl, ( $C_1$ - $C_8$ -alkoxy)carbonyl, ( $C_1$ - $C_4$ -alkoxy- $C_1$ - $C_4$ -alkyl)carbonyl, ( $C_3$ - $C_8$ -cycloalkyl)carbonyl; ( $C_1$ - $C_6$ -haloalkyl)carbonyl, ( $C_1$ - $C_6$ -haloalkoxy)carbonyl, (halo- $C_1$ - $C_4$ -alkoxy- $C_1$ - $C_4$ -alkyl)carbonyl, ( $C_3$ - $C_8$ -halocycloalkyl)carbonyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms; or  $-C(=O)C(=O)R^4$ ,  $CONR^5R^6$  or  $-CH_2NR^7R^8$ , and
- 10  $R^{3-B}$  represents hydrogen, halogen,  $C_1$ - $C_8$ -alkyl,  $C_1$ - $C_8$ -haloalkyl,
- 15 or
- 20 b)  $R^{1-B}$  represents hydrogen,  $C_1$ - $C_8$ -alkyl,  $C_1$ - $C_6$ -alkylsulphinyl,  $C_1$ - $C_6$ -alkylsulphonyl,  $C_1$ - $C_4$ -alkoxy- $C_1$ - $C_4$ -alkyl,  $C_3$ - $C_8$ -cycloalkyl;  $C_1$ - $C_6$ -haloalkyl,  $C_1$ - $C_4$ -haloalkylthio,  $C_1$ - $C_4$ -haloalkylsulphinyl,  $C_1$ - $C_4$ -haloalkylsulphonyl, halo- $C_1$ - $C_4$ -alkoxy- $C_1$ - $C_4$ -alkyl,  $C_3$ - $C_8$ -halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms; formyl, formyl- $C_1$ - $C_3$ -alkyl, ( $C_1$ - $C_3$ -alkyl)carbonyl- $C_1$ - $C_3$ -alkyl, ( $C_1$ - $C_3$ -alkoxy)carbonyl- $C_1$ - $C_3$ -alkyl; halo-( $C_1$ - $C_3$ -alkyl)-carbonyl- $C_1$ - $C_3$ -alkyl, halo-( $C_1$ - $C_3$ -alkoxy)carbonyl- $C_1$ - $C_3$ -alkyl having in each case 1 to 13 fluorine, chlorine and/or bromine atoms; ( $C_1$ - $C_8$ -alkyl)carbonyl, ( $C_1$ - $C_8$ -alkoxy)carbonyl, ( $C_1$ - $C_4$ -alkoxy- $C_1$ - $C_4$ -alkyl)carbonyl, ( $C_3$ - $C_8$ -cycloalkyl)carbonyl; ( $C_1$ - $C_6$ -haloalkyl)carbonyl, ( $C_1$ - $C_6$ -haloalkoxy)carbonyl, (halo- $C_1$ - $C_4$ -alkoxy- $C_1$ - $C_4$ -alkyl)carbonyl, ( $C_3$ - $C_8$ -halocycloalkyl)carbonyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms; or  $-C(=O)C(=O)R^4$ ,  $CONR^5R^6$  or  $-CH_2NR^7R^8$ , and
- 25  $R^{3-B}$  represents halogen,  $C_1$ - $C_8$ -alkyl,  $C_1$ - $C_8$ -haloalkyl,
- 30



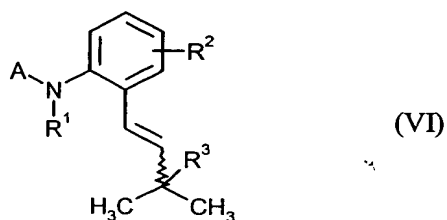
and  $R^2$ ,  $R^4$ ,  $R^5$ ,  $R^6$ ,  $R^7$  and  $R^8$  are each as defined in Claim 1.

15. Isopentone derivatives of the formula (V)



- 5 in which  $R^1$ ,  $R^2$ ,  $R^3$  and A are as defined in Claim 1.

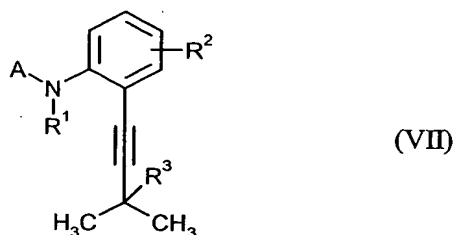
16. Isopentene derivatives of the formula (VI)



in which  $R^1$ ,  $R^2$ ,  $R^3$  and A are as defined in Claim 1.

10

17. Isopentyne derivatives of the formula (VII)

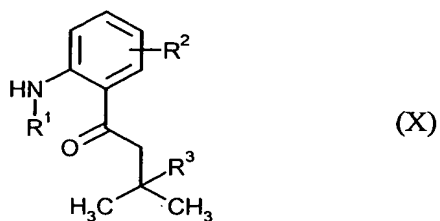


in which

$R^1$ ,  $R^2$  and  $R^3$  are as defined in Claim 1,

- 15 A is as defined in Claim 1, but not A1.

18. Alkanoneanilines of the formula (X)



in which  $R^1$ ,  $R^2$  and  $R^3$  are as defined in Claim 1.